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EXAMINER
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DANG, HUNG Q

ART UNIT	PAPER NUMBER
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2621

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10/29/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/029,903	<b>Applicant(s)</b> KATO ET AL.	
	<b>Examiner</b> Hung Q. Dang	<b>Art Unit</b> 2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/17/2009 has been entered.

### ***Response to Arguments***

Applicant's arguments filed 08/17/2009 have been fully considered but they are not persuasive.

On page 12, Applicant argues that none of the cited references discloses the limitation of "said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for said second AV stream."

In response, Examiner respectfully disagrees. At least in paragraphs [0057]-[0064], Sakai discloses the editing list corresponding to the recited playlist, in which it specifies how to play back for previewing of the cuts and transitional materials sequentially – referring to Fig. 4G, such an editing list specifies the cuts a, X1, b, X2, and d sequentially. In such an example, the first play item comprises the information in

the editing list that specifies the cut a to be played first. The second play item is interpreted as the information in the editing list that comprises at least two other pieces of information, one of which specifies to X1 to be played back next to the cut a and the other of which specifies the cut b to be played after the transitional material X1 has been played back. Such a second play item therefore includes a reference to the clip information for the Bridge Clip AV stream, i.e. specifying playback of X1, and a reference to the clip information for said second AV stream, i.e. specifying playback of the cut b itself).

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

.... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

**Claims 8, 12, and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.**

Claims 8, 12, and 14 recite “a recording medium having recorded thereon a computer-readable program” and a “computer-readable recording medium”. However, the recited “recording medium” could be reasonably interpreted as encompassing statutory media such as a “ROM”, “RAM”, “EPROM”, “CD-ROM”, etc, as well as non-statutory subject matter such as a magnetic, optical, electromagnetic, infrared, ... or propagation medium.

A “magnetic, optical, electromagnetic, infrared, ... or propagation medium” is neither a process nor a product, (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, a “magnetic, optical, electromagnetic, infrared, ... or propagation medium” is a form of energy, in the absence of any physical structure or tangible material.

The Examiner suggests amending the claim to recite the “recording medium” as “non-transitory recording medium” to include tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1, 7-8, 10-12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al. (JP 11-146330 - references herein are made to Sakai et al. - US 2003/0012550, as an English translation).**

Claim 1 recites an information processing apparatus, comprising (1) a generator operable to generate a Bridge Clip AV stream from a first AV stream and a second AV stream to consist of portions of each of those streams without changes to the portions; and to generate clip information that includes address information as information pertinent to said Bridge Clip AV stream and a clip stream type information for the Bridge Clip AV stream; (2) a recorder to record the generated Bridge Clip AV stream and clip information; wherein said Bridge Clip AV stream maintains continuity to achieve a seamless playback and said clip stream type information included in the clip information for said Bridge Clip AV stream indicates that said third AV stream is a Bridge Clip AV stream, said Bridge Clip AV stream including enough data to enable continuous playback from a record medium during a time when a playback head jumps from one location on the record medium to another location on the record medium, said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for said second AV stream.

Sakai et al. anticipate an video editing/recording apparatus, comprising (1) a generator operable to generate a combined AV stream, which is a Bridge Clip AV stream, from the first AV stream and second AV stream for only a transition period [0011] using preset portions of the inputted streams (*Fig. 4A-4G*) without changes to the portions ([0097]; [0103]; [0105]) and an editing list ([0071]), which has information to specify the corresponding cuts and transition material ([0057]-[0064]), which is the clip information, including editing points (in-points and out-points) to mark the cuts ([0086]), which are the address information to the first and second AV streams ([0098]). The editing list also includes "transition mode" for each combined AV stream ([0067] - *wherein the "transition mode" is the "clip stream type information"*) (2) a recorder to record the generated Bridge Clip AV stream and the editing list ([0072]); wherein said Bridge Clip AV stream maintains continuity to achieve a seamless playback (*Fig. 4F; Fig. 4G; "Bridge Clip AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback*) and said clip stream type information included in the clip information for said Bridge Clip AV stream indicates that said third AV stream is a Bridge Clip AV stream (*the "transition mode" indicates type of Bridge Clip AV stream, e.g. "fade-in", "fade-out" Bridge Clip AV stream in [0070] or "wipe" Bridge Clip AV stream in [0046]*), said Bridge Clip AV stream including enough data to enable continuous playback from a record medium during a time when a playback head jumps from one location on the record medium to another location on the record medium ([0033], [0084], [0106]; *Figs. 4*), said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said

first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for said second AV stream ([0057]-[0064] – *wherein the editing list corresponding to the recited playlist, in which it specifies how to play back for previewing of the cuts and transitional materials sequentially – referring to Fig. 4G, such an editing list specifies the cuts a, X1, b, X2, and d sequentially. In such an example, the first play item comprises the information in the editing list that specifies the cut a to be played first. The second play item is interpreted as the information in the editing list that comprises at least two other pieces of information, one of which specifies to X1 to be played back next to the cut a and the other of which specifies the cut b to be played after the transitional material X1 has been played back. Such a second play item therefore includes a reference to the clip information for the Bridge Clip AV stream, i.e. specifying playback of X1, and a reference to the clip information for said second AV stream, i.e. specifying playback of the cut b itself*).

Claim 7 is rejected for the same reason as discussed in claim 1 above.

Claim 8 is rejected for the same reason as discussed in claim 1 above.

Claims 10-12 recite an information processing apparatus, an information processing method, and a recording medium having recorded thereon a computer-readable program for processing information, comprising: (1) reproducing or a reproducing unit operable to reproduce a recording medium having recorded thereon a first AV stream, a second AV stream, a Bridge Clip AV stream consisting of preset portions of the first and second AV stream without changes to the portions, and clip



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information that includes address information pertinent to said Bridge Clip AV stream and clip stream type information for the Bridge Clip AV stream, said Bridge Clip AV stream being reproduced when reproduction is switched from said first AV stream to said second AV stream, including address information on addresses of source packets of the first and the second AV streams; (2) controlling or a controller operable to control said reproducing step or unit for switching reproduction from said first AV stream readout-controlled in a first readout controlling step to said Bridge Clip AV stream and from said Bridge Clip AV stream to said second AV stream, based on information pertinent to said Bridge Clip AV stream, readout-controlled in a second readout controlling step; wherein said Bridge Clip AV stream maintains continuity to achieve a seamless playback and said clip stream type information included in the clip information for said Bridge Clip AV stream indicates that said third AV stream is a Bridge Clip AV stream, said Bridge Clip AV stream including enough data to enable continuous playback from a record medium during a time when a playback head jumps from one location on the record medium to another location on the record medium, said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for said second AV stream.

Sakai et al. anticipate an information processing apparatus, an information processing method, and a recording medium having recorded thereon a computer-readable program for processing information, comprising: (1) reproducing or a

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reproducing unit operable to reproduce a recording medium having recorded thereon a first AV stream, a second AV stream, a Bridge Clip AV stream consisting of preset portions of the first and second AV stream ([0011], Fig. 4A-4G) without changes to the portions ([0097]; [0103]; [0105]), and an editing list ([0071]), which has information to specify the corresponding cuts and transition material ([0057]-[0064]), which is the clip information, including editing points (in-points and out-points) to mark the cuts ([0086]), which are the address information to the first and second AV streams ([0098]). The editing list also includes "transition mode" for each combined AV stream ([0067]; *the "transition mode" is the "clip stream type information"*), said Bridge Clip AV stream being reproduced when reproduction is switched from said first AV stream to said second AV stream, including address information on addresses of source packets of the first and the second AV streams ([0071], [0086], [0098]); (2) controlling or a controller operable to control said reproducing step or unit for switching reproduction from said first AV stream readout-controlled in a first readout controlling step to said Bridge Clip AV stream and from said Bridge Clip AV stream to said second AV stream, based on information pertinent to said Bridge Clip AV stream, readout-controlled in a second readout controlling step ([0093]); wherein said Bridge Clip AV stream maintains continuity to achieve a seamless playback (Fig. 4F; Fig. 4G; *"third AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback"*) and said clip stream type information included in the clip information for said Bridge Clip AV stream indicates that said third AV stream is a Bridge Clip AV stream (*the "transition mode" indicates type of Bridge Clip AV stream,*

*e.g. “fade-in”, “fade-out” Bridge Clip AV stream in [0070] or “wipe” Bridge Clip AV stream in [0046]), said Bridge Clip AV stream including enough data to enable continuous playback from a record medium during a time when a playback head jumps from one location on the record medium to another location on the record medium ([0033], [0084], [0106]; Figs. 4), said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for said second AV stream ([0057]-[0064] – wherein the editing list corresponding to the recited playlist, in which it specifies how to play back for previewing of the cuts and transitional materials sequentially – referring to Fig. 4G, such an editing list specifies the cuts a, X1, b, X2, and d sequentially. In such an example, the first play item comprises the information in the editing list that specifies the cut a to be played first. The second play item is interpreted as the information in the editing list that comprises at least two other pieces of information, one of which specifies to X1 to be played back next to the cut a and the other of which specifies the cut b to be played after the transitional material X1 has been played back. Such a second play item therefore includes a reference to the clip information for the Bridge Clip AV stream, i.e. specifying playback of X1, and a reference to the clip information for said second AV stream, i.e. specifying playback of the cut b itself).*

Claim 14 recites a recording medium having recorded thereon address information, comprising: (1) a Bridge Clip AV stream consisting of preset portions of the

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first and second AV streams without changes to the portions and being reproduced when reproduction is switched from said first AV stream to said second AV stream; (2) clip information that includes address information as information pertinent to said Bridge Clip AV stream and clip stream type information for the Bridge Clip AV stream, said address information including information on addresses of source packets of said first and second AV streams at a time of switching of reproduction from said first AV stream to a third AV stream and from said third AV stream to said second AV stream; wherein said Bridge Clip AV stream maintains continuity to achieve a seamless playback and said clip stream type information included in the clip information for said Bridge Clip AV stream indicates that said third AV stream is a Bridge Clip AV stream, said Bridge Clip AV stream including enough data to enable continuous playback from a record medium during a time when a playback head jumps from one location on the record medium to another location on the record medium, said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for said second AV stream.

Sakai et al. anticipate a recording medium having recorded thereon address information, comprising: (1) a Bridge Clip AV stream consisting of preset portions of the first and second AV streams without changes to the portions ([0097]; [0103]; [0105]) and being reproduced when reproduction is switched from said first AV stream to said second AV stream ([0011], [0012], Fig. 4A-4G) (2) and an editing list ([0071]), which has

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information to specify the corresponding cuts and transition material ([0057]-[0064]), which is the clip information, including editing points (in-points and out-points) to mark the cuts ([0086]), which are the address information to the first and second AV streams ([0098]). The editing list also includes "transition mode" for each combined AV stream ([0067]; *the "transition mode" is the "clip stream type information"*), said address information including information on addresses of source packets of said first and second AV streams at a time of switching of reproduction from said first AV stream a third AV stream and from said third AV stream to said second AV stream ([0071], [0086], [0098], and [0072]); wherein said Bridge Clip AV stream maintains continuity to achieve a seamless playback (*Fig. 4F; Fig. 4G; "third AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback*) and said clip stream type information included in the clip information for said Bridge Clip AV stream indicates that said third AV stream is a Bridge Clip AV stream (*the "transition mode" indicates type of Bridge Clip AV stream, e.g. "fade-in", "fade-out" Bridge Clip AV stream in [0070] or "wipe" Bridge Clip AV stream in [0046]*), said Bridge Clip AV stream including enough data to enable continuous playback from a record medium during a time when a playback head jumps from one location on the record medium to another location on the record medium ([0033], [0084], [0106]; *Figs. 4*), said first AV stream is associated with a first play item and said second AV stream is associated with a second play item, said first and second play items are part of a playlist, and said second play item includes a reference to said clip information for said Bridge Clip AV stream and a reference to a clip information for

said second AV stream ([0057]-[0064] – wherein the editing list corresponding to the recited playlist, in which it specifies how to play back for previewing of the cuts and transitional materials sequentially – referring to Fig. 4G, such an editing list specifies the cuts a, X1, b, X2, and d sequentially. In such an example, the first play item comprises the information in the editing list that specifies the cut a to be played first. The second play item is interpreted as the information in the editing list that comprises at least two other pieces of information, one of which specifies to X1 to be played back next to the cut a and the other of which specifies the cut b to be played after the transitional material X1 has been played back. Such a second play item therefore includes a reference to the clip information for the Bridge Clip AV stream, i.e. specifying playback of X1, and a reference to the clip information for said second AV stream, i.e. specifying playback of the cut b itself)..

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. (JP P09-302628 - references herein are made to Sakai et al. - US 2003/0012550, as an English translation) as applied to claims 1, 7-8, 10-12, and 14 above, and further in view of Lenihan et al. (US Patent 6,169,843).**

Claim 2 recites the arrival time stamp of the source packet of the first AV stream being continuous with that of a first source packet at the leading end of the third AV stream; and the arrival time stamp of the source packet at the trailing end of the third AV stream being continuous with that of a second source packet of the second AV stream.

Claim 3 recites a sole discontinuous point exists in an arrival time stamp of said second source packet of the third AV stream.

Sakai et al. do not teach arrival time stamp being continuous at link boundary. Sakai et al. also do not teach a sole discontinuous point existing in an arrival time stamp of a source packet of the third AV stream.

Lenihan et al. teach a recording and playback of audio-video transport streams, which in record mode, an arrival time stamp including an arrival time stamp indicating discontinuity within a series of subsequent transport packets (*column 11, lines 44-52*), is generated for each input transport packet to be recorded (*column 9, lines 47-49*). When reproduced, the arrival time stamp value from the immediately following transport packet is then loaded into STC as the current time (*column 11, lines 55-57*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the method of using arrival time stamps, including the timestamp discontinuity feature, taught by Lenihan et al. into the recording/reproduction apparatus taught by Sakai et al. One of ordinary skill in the art at the time the invention was made would have had a reasonable expectation of combining the use of arrival time stamps, , including the timestamp discontinuity feature, taught by Lenihan et al. and the recording/reproduction apparatus taught by Sakai et al. because, according to

Lenihan et al., it permits transport packets to be delivered to a playback device continuously without requiring alteration in the previously stored ATS values (*column 11, 58-61*).

**Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. (JP 11-146330 - references herein are made to Sakai et al. - US 2003/0012550, as an English translation) and Lenihan et al. (US Patent 6,169,843) as applied to claims 1-3, 7-8, 10-12, and 14 above, and further in view of Nakatani et al. (US Patent 6,118,924).**

Claims 4-6 recite the addresses are determined so that a data portions of AV streams previous and subsequent to the source packets of the first and second AV streams respectively, and the third AV stream are located in a continuous area of not less than a preset size on a recording medium.

Sakai et al. and Lenihan et al. do not teach the minimum area of continuity on a recording medium.

Nakatani et al. teach the minimum physically continuous extent length required for continuous reproduction of AV data (*column 35, Formula 6, Formula 9, Formula 10; column 36, Formula 12*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the requirement on minimum physically continuous area for storing AV data taught by Nakatani et al. into the information processing apparatus with continuous arrival time stamps at link boundary taught by Sakai et al. and Lenihan



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et al. because, otherwise, the amount of AV data in the buffer could decrease to zero and continuous reproduction would not be guaranteed (*column 35, lines 1-7*).

Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, absent unexpected results to the contrary.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/  
Examiner, Art Unit 2621

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621